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10/568,381

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Walter Niederstaetter

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CHARLOTTE, NC 28211-2841

EXAMINER

WOOD, ELLEN S

ART UNIT

PAPER NUMBER

1794

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/568,381 | <b>Applicant(s)</b><br>NIEDERSTAETTER ET AL. |  |
|                              | <b>Examiner</b><br>ELLEN S. WOOD     | <b>Art Unit</b><br>1794                      |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/14/2006; 09/04/2007</u> .                                  | 6) <input type="checkbox"/> Other: ____.                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 1, the terms "net" and "reinforcing packaging" are not explained within the specifications. Do these terms relate to a system for holding the shirred stick so the casing does not collapse on itself? Does the applicant intend for this to imply the casing is self-supported? There is no description of these terms and how they relate to the invention of the shirred stick, thus the examiner deems that the claim is indefinite for failing to particularly point out and distinctly claim the subject matter.

In regards to claim 3, the specifications do not disclose what a sigma-5 value signifies or how it is measured. The sigma-5 value could be considered the shrinkage of the film in the longitudinal/transverse direction or the stretching of the film in the longitudinal/transverse direction. Thus, the examiner deems that the claim is indefinite for failing to particularly point out and distinctly claim the subject matter.

In regards to claim 10, the specifications do not disclose or explain the definition of a nominal caliber. The nominal caliber to the examiner means the change of the inside diameter of the shirred food casing. However, the instant applicant does not define where this is the nominal caliber after the casing has been filled, shirred, shrunk, stretched, etc. Thus, the examiner deems

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that the claim is indefinite for failing to particularly point out and distinctly claim the subject matter.

In regards to claim 2-21, these claims are also deemed indefinite because they are dependent upon claim 1.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 6-8, 14, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Cruz (US 2004/0062834).

In regards to claim 1, Cruz discloses a polyamide-based sausage casing suitable for use with uncooked meats (abstract). The shirred stick casing is a polyamide based film [0020]. The shirred stick casing that is produce is sufficiently rigid for transportation to sausage manufacturers and provides sufficient resistance to premature unshirring and breakage during the filling process [0035]. The examiner considers the shirred stick casing of Cruz to have sufficient intrinsic stability to be processed on a stuffing machine.

In regards to claim 6, Cruz discloses that the polyamide resin blend can be biaxially stretch-oriented to produce a single-layered polyamide-based sausage casing (abstract).

In regards to claim 7, Cruz discloses that the thickness of that the shirred stick has a film thickness that ranges from 6 microns to about 80 microns [0031], thus the thickness is less than 90  $\mu\text{m}$  (1 micron equals 1  $\mu\text{m}$ ).

In regards to claim 8, Cruz discloses that the shirred stick casing is a polyamide based film [0020], which is considered a soft synthetic polymer.

In regards to claim 14, Cruz discloses that the shirred stick casing has excellent gas and moisture permeability properties (abstract)

In regards to claim 20, Cruz discloses that the shirred stick casing is produced from an aliphatic polyamide or copolyamide based resin [0022].

5. Claims 1, 8, 9, 13, 15, 16, 17, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Merritt et al. (US 7001635, hereinafter "Merritt").

In regards to claim 1, Merritt discloses a casing that is made from plastics or polyamides (col. 6 lines 55-57). The shirred stick casings are self-sustaining and adapted for stuffing with products, particularly emulsions that form sausages (col. 6 lines 11-13).

In regards to claim 8, Merritt discloses that the casings are made from plastics or polyamides (col. 6 lines 55-57), which are considered soft polymers.

In regards to claim 9, Merritt discloses that a typical additive to a casing is a plasticizer (col. 6 lines 62-65).

In regards to claim 13, Merritt discloses that the casings are stuffed to form individual links (col. 11 lines 7-9), thus it would be known to one of ordinary skill in the art that the casings were closed at one end.

In regards to claim 15, Merritt discloses that the tubular casings are typically gathered into compressed shirred ("pleated") sticks using well-known processes and equipment (cols. 6-7 lines 65-67 and line 1). During the shirring operation it is common to coat the casing, particularly the inner surface, with a solution that contains ingredients such as anti-pleat lock agents to form shirred stick casings with self-sustaining properties (col. 7 lines 1-13). The examiner considers this a temporary setting of the shirring geometry and the resultant breakdown in tension of the shirred pleats.

In regards to claim 16, Merritt discloses the method of forming a shirred sausage casing and filling the casing with meat on a high speed fully automatic (FAM) mechanical stuffer (col. 11 lines 7-9).

In regards to claim 17, Merritt discloses that individual casings stuffed with meat were produced (col. 11 line 9).

In regards to claim 20, Merritt discloses that in general the polyamide used for the casing is nylon (col. 1 lines 62-63), which is an aliphatic polyamide.

In regards to claim 21, Merritt discloses that the plasticizer can include propylene glycol (col. 8 lines 6-9).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cruz (US 2004/0062834).

Cruz discloses the single layered polyamide shirred food casing as described in the previous section.

Cruz is silent with regards to the specific properties of the water vapor permeability and corona treating the outside surface.

Cruz discloses that the polyamide resin is blended a silicon-based barrier control agent for the specific purpose to increase the permeability of the sausage casing (abstract). Thus, it would be obvious to one of ordinary skill in the art at the time of the invention that the water vapor permeability of the sausage casing disclosed by Cruz could be adjusted as required for particular applications because the Cruz teaches how to adjust the gas and moisture barrier properties of the casings. (abstract).

Cruz discloses that the single-layered polyamide based sausage casings can have the printing of words, numbers, and graphics [0037]. Corona treating increases the surface energy of plastic films to improve wet ability and adhesion of inks. Thus, it would be obvious to one of ordinary skill in the art at the time of the invention to corona treat the outer surface of the shirred food casing to improve the adhesion of inks when printing words, number, and graphics onto the casings.

8. Claims 2, 4-5 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merritt et al. (US 7001635, hereinafter "Merritt").

Merritt discloses the self-sustaining shirred stick casing as described in the previous section.

Merritt is silent with the specific properties that are associated with the self-sustaining shirred stick casing such as the bending percentage and the extension of the shirred food casing after shirring.

Merritt discloses that the tubular casings are typically gathered into compressed self-sustaining shirred sticks (col. 6 lines 65-67). The compression ratio of the instant applicant is used to increase the intrinsic stability of the shirred food casing (pg. 4 lines 24-28). Thus, it would be obvious to one of ordinary skill at the time of the invention that the compression ratio of the instant applicant would be used to form the shirred sticks of Merritt to increase the stability of the self-sustaining shirred sticks.

Merritt discloses that when shirred casing stick are used with automatic food stuffing equipment it is extremely important that shirred casing stick has the durability to be a self-sustaining article (col. 8 lines 58-61). Thus, it would be obvious to one of ordinary skill in the art at the time of the invention that if the shirred casing stick is self-sustaining the amount of bending under the effect of the casings own weight would be minimal to none.

Merritt discloses that the formation of the shirred casing sticks will have sufficient coherency to hold together from immediately after shirring to storage (cols. 8-9 lines 67 and 1-7). Thus, it would be obvious to one of ordinary sill in the art at the time of the invention that if the shirred casing stick maintains its shape after shirring the amount of extension in the longitudinal direction would be minimal to none when stored.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELLEN S. WOOD whose telephone number is (571)270-3450. The examiner can normally be reached on Monday-Friday 7-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ellen S Wood  
Examiner  
Art Unit 1794

/Carol Chaney/

Supervisory Patent Examiner, Art Unit 1794